



Submitted to:

The Wireless Telecommunications bureau  
Federal Communications Commission  
Washington, DC 20554

Docket WT 18-353

RE: the petition to "request waivers" from the deadline for Grandfathered Wireless broadband licensees transition to CBRS operation in the 3650 band.

COMMENTS FROM SLOPESIDE INTERNET LLC, GRAND COUNTY COLORADO

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### **Slopeside Internet, Company Brief**

Slopeside Internet LLC (SSI) is a small rural fixed wireless Internet Service Provider located in Grand County which is on Colorado's Western Slope (ie: on the west side of the Continental divide from the populous "Front Range" of Colorado) just over an hour's drive from downtown Denver.

SSI has been in continuous operation for over 14 years and have been providing broadband Internet Access to end-user residents & businesses continuously in eastern Grand County.

SSI filed with the Commission in late 2007 to get an "NN" license to be allowed to operate in the 3650MHz band. We rec'd our nationwide license in early 2008, but had to wait for industry to build equipment that made it possible to use the 3650 band. (reasonably priced radio gear came to market sometime in mid-2010)

Since that time, we've slowly but surely expanded the number of our base stations & end-user locations using fixed wireless technology that operates under our NN licensed.

In 2016 SSI, using a significant number of registered customer locations, filed with the Commission for protection of those registered customer locations to afford those locations from new radio gear operating under the LTE air interface standard that would be coming to market soon.

We did so despite the complexity of the process and the requirements of the FCC's ULS and other system need to request the GWPZ license protection. We now have what amounts to incumbent status for a significant part of our 3GHz network foot print.

We are now preparing to deploy fixed wireless LTE upgrades in 2019/2020 that will use CBRS and SAS technology so we can transition our prior investment, keep our growing customer base, and enable us to deliver better products & services that both our market and the FCC demand.

## **Introduction**

This comment is filed with the Commission according to its "permit but disclose" Ex Parte rules.

SSI (and companies like us who have filed for protection of our 3650 to 3700 use) are grateful to UTC & WISPA for petitioning the Commission to allow for the extension of the deadline to transition to CBRS use for reasons outlines in the below summary.

## **Summary**

1. These waivers must be allow to drive a coexistence imperative to allow different air interface standards to share spectrum. (ie the FCC should not pick winners)
2. Rural interests, innovation & entrepreneurship are an important part of the benefit of how CBRS will create rural market solutions. The use of waivers will support this.
3. The by-products created by the license size reconsideration proceeding must be addressed. (there is a reason to use these waivers given what has transpired in a regulatory context and the time that has been wasted and the timing of the build out season)
4. Private network operations & prior investments matters (The CMRS industry must understand that private network operations have made investments that still have a lot of ROI to return to those that have built out in 3650)
5. The practical nature of fork-lift upgrades vs the concept of a fixed wireless replacement cycle. (There simply is not enough time for smaller rural operators to do the required transition to CBRS given the time squandered on the license size reconsideration, and just simply because of the timing of the deadline and the start and end of build seasons in rural markets that often have abbreviated

## **Section 1. Waivers will drive a co-existence imperative**

We often hear from the Commission that it does not pick winners. SSI believes that co-existence activities will be much more "front and center" if new entrants and larger industry players are forced to wade the CBRS knowing that there is an incumbent use in the 50Mhz of the 3650MHz part of in the CBRS's 150MHz of spectrum.

And, given it is for a limited time, and that a CBRS transition from GWPZ status to CBRS ICD and operations is not just a requirement, but a benefit, the main purpose of this waiver (to offer protection to a short term transitioning incumbent) will serve to get the industry up the co-existence learning curve.

Why? There are very real Interference issues ahead for legacy GWPZ operators and their customers and legacy hardware. (i.e.: innovators/early adopter may end up being overrun by new entrants who likely will have much less fixed wireless experience and knowledge.. and who may be much more a problem than a benefit both to GWPZ protected operators and the net entrants themselves)

If these waivers are not supported, then the Commission should realize that there may be many rural customers who could see their service degraded or loose service completely. (..and--if the new entrants choose to ignore the law and do not cooperate and choose to ignore incumbent protections & co-existence requirements --elected officials will likely end up being contacted by their constituents and the Commission might see blow back from NOT supporting the use of waivers.

## **Section 2. Rural interests, innovation & entrepreneurship**

This is waiver supports the overlap of American innovation and entrepreneurship in rural places. (yes.. fixed wireless is now serving many millions of rural Americans)

The Commission needs to understand and integrate the "truth on the ground" in rural places outside the DC Beltway, (thought in fairness there have been many FCC Commissioners making a clear effort as of late to do so! )and supporting GWPZ waivers is the best why to do it.

The use of these waivers will help assure a future innovative and a vibrant CBRS eco-system w/products & services that will benefit all Americans. Getting this right is very important! As is enabling new competition & new entrants who may bring agile & innovative business models to a new & emerging global wireless network infrastructure marketplace that 3.5GHz represents around the world.

To sum up, rural interests, innovation & entrepreneurship matters. Rural broadband can benefit greatly from these waivers given the economic realities of how large public companies have to focus on earning and profit and their history of doing so--verses supporting rural US communities.

### **Section 3. Private networks have been using the 3650 band .**

Private networks operations in the enterprise marketplace are quite excited by CBRS --but have also been effected by the by-products outlined above.

The CMRS industry will always be able to garner business in dense urban core markets--but for the companies that filed for and received experimental licenses to get into the CBRS band early who are focused on private network infrastructure build out using legacy 3650 band spectrum, its important to allow their early investments to have more run way and a transition.

### **Section 4. The by-products of the license size reconsideration proceeding needs to be addressed.**

The delay created by the license size reconsideration proceeding and its timing had a very real effect--an effect that can be largely mitigated by allowing a wavier process as requested.

The below outlined effects (that occurred because of the license size proceeding filed by CTIA & T-Mobile) we feel speak for themselves.

A) The "time compression" created by reconsidering license sizes (ie: The cellular industry's attempt to foreclose new entrants by trying to assure that very large license sizes would be the only way to enter the CBRS PAL market) was quite real.

Though the Commission recently established a compromise that county-sized licenses will be adopted in the recently released rules, 5 quarters of regulatory uncertainty took their toll on the independent operator community's to deploy in the band. One might have recalled the TVWS proceeding in 2009/2010 in the same light as the CBRS.

B) This same "regulatory uncertainty" also created a polarizing effect for mobile operator interests--while at the same time creating a chilling effect for investment and build-out by fixed wireless operators--including a majority of those who filed for protection of their grandfathered licenses. (..tho many did seek experimental license to move forward any way--which the Commission pulled back on worried that too many experimental licenses would be granted)

C) The effect on CBRS radio manufacturers was as noticeable as was the effect on WISP operators wanting to use Fixed Wireless LTE technology. Everything was put on hold waiting for some regulatory certainty to emerge.

D) Its also VERY important to note that--without having a wavier opportunity--the practical reality is that there would be only about one build season in many places in the US in which to execute a full & complete upgrade of all radios that have been given protection.

## **Section 5. The practicality of the WISP business model and why it needs these waivers..**

There are clear reasons that fixed wireless companies are profitable most having to do with how much can be done with scarce resources and a good fiber backhaul.

One such reason is that unsubsidized competitors are serving markets that—for various reasons--have been largely by-passed by telecom (whom may not spend the needed capital on fiber or copper plant upkeep in rural places), cable companies (who may not be interested in investing outside a franchise boundaries in rural places) and mobile operators (who—though there are clearly exceptions-- likely will wait for the RAF or even CAF Phase III before investing in rural markets properly)

Note that this is not about smaller operators not having the needed resources, its about the by-product of having to compress an upgrade cycle into too short a period of time to keep fixed wireless networks stable and assure a smooth transition.

Such a short transition will effect both budgets, cash flow, and most of all--customer satisfaction. It would be a threat to any fixed wireless operators business--which (not surprisingly) would be something that would dampen plans for WISPs to use CBRS.

To sum up why these waivers are most important, WISP operators have something called the replacement cycle. (i.e. a continuous upgrading of equipment that has largely been driven by innovations from manufacturers in the fixed wireless equipment industry—some of which are too good to ignore.)

SSI believes that the equipment replacement cycle needs to be given time to do what it always does.

Fork-lift upgrades vs allowing a replacement cycle to enable a measured transition lessen the burden on Rural deployments of CBRS-based equipment and gives competition a boost.

Thank you for your time and attention.

Sincerely,

Slopeside Internet LLC

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